

**MONTHLY OPERATION REPORT
OF
WATER TREATMENT PLANT**

For Month of September 2019

Flint Water Plant
NAME OF WATER SYSTEM

2310
WSSN

Genesee
COUNTY

Robert Jones
CERTIFIED OPERATOR

D-1
CLASSIFICATION


SIGNATURE OF APPROPRIATE OFFICIAL

TREATMENT RATE AND FILTER DATA

1. Treatment Rate, Maximum 10.40 Million Gallons Per Day
2. Treatment Rate, Approved Rated Plant Capacity 36 Million Gallons per Day
3. Average Filter Run N/A Hours, Average Head Loss N/A Feet
4. Average Filtration Rate N/A Gallons per Square Ft. per Minute
5. Maximum Filtration Rate N/A Gallons per Square Ft. per Minute
6. Average Wash Water Use N/A percent of Treated Water

CHEMICAL DATA

7. Sodium Hypochlorite on hand at CS2 2905 gal.: Estimated supply 43 days
8. Sodium Hypochlorite on hand at outstations 242 gal: Estimated supply 26 days.
9. Phosphoric Acid on hand 743 gal.: Estimated supply 39 days
9. Sodium Hydroxide on hand 3133 gal.: Estimated supply 24 days

Remarks:

Submit to: MDEQ - Office of Drinking Water & Municipal Assistance
LANSING DISTRICT OFFICE
525 West Allegan Street, 1st Floor South
(Constitution Hall)
PO Box 30242
Lansing, MI 48909-7742



Fluoridation & Chlorination

WSSN 2310

Sep-19

DATE	Fluoride Applied F mg/l	Fluoride Analyses mg/l			Chlorine App. Mg/l			Chlorine Residual mg/l								
					Chlorine App. Mg/l	Chlorine (prior to filtration) mg/L OCl ⁻	Post Chlorine mg/L	Sta II	Dort	3MG Well	Tap					
		Raw	Tap	Dist							Free	Free	Free	Free		
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1		0.73	0.72		1.39				0.9						1.7	
2		0.71	0.71		1.35				0.9						1.7	
3		0.63	0.62		1.22				0.9						1.7	
4		0.59	0.63		1.33				0.9						1.7	
5		0.66	0.69		1.33				0.8						1.6	
6		0.66	0.66		1.41				0.9						1.6	
7		0.68	0.69		1.40				1.0						1.7	
8		0.72	0.71		1.35				0.8						1.6	
9		0.71	0.74		1.37				0.9						1.6	
10		0.90	0.89		1.30				1.0						1.7	
11		0.71	0.73		1.15				0.9						1.7	
12		0.70	0.69		1.18				0.9						1.6	
13		0.58	0.59		1.21				0.8						1.6	
14		0.56	0.66		1.26				0.8						1.6	
15		0.59	0.64		1.18				0.9						1.6	
16		0.67	0.65		1.21				0.9						1.6	
17		0.64	0.63		1.37				0.8						1.6	
18		0.72	0.69		1.39				0.8						1.7	
19		0.63	0.64		1.32				0.9						1.7	
20		0.62	0.63		1.25				0.8						1.7	
21		0.64	0.63		1.20				0.9						1.7	
22		0.65	0.65		1.27				0.9						1.7	
23		0.66	0.66		1.17				1.1						1.7	
24		0.59	0.61		1.11				0.9						1.7	
25		0.63	0.60		1.04				1.0						1.7	
26		0.70	0.71		1.14				0.7						1.7	
27		0.64	0.66		1.12				1.0						1.7	
28		0.79	0.79		1.08				1.0						1.6	
29		0.70	0.76		1.17				1.0						1.6	
30		0.64	0.64		1.22				1.0						1.7	
AVG			0.68		1.25				0.9						1.7	
MAX			0.89		1.41				1.1						1.7	
MIN			0.59		1.04				0.7						1.6	



Chemical Analyses WSSN 2310 Sep-19

D A T E	pH		Total Hardness as CaCO ₃ mg/l		Total Alkalinity as CaCO ₃ mg/l		NonCarbonate Hardness as CaCO ₃ mg/l		Iron mg/L		Calcium Ca ²⁺ mg/l		Magnesium as Mg ²⁺ mg/l		Chloride as Cl ⁻ mg/l	
	CSII	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap
	29	30	31	32	33	34	35	36	37	38.00	39	40	41	42	43	44
1	7.21	7.38		104		82		34	0.01	0.01		28.1		8.3		16
2	7.24	7.38		100		86		28	0.0	0.00		28.9		6.8		16
3	7.26	7.53	102	100	80	82	30	30	0	0.02	28.9	28.1	7.3	7.3	16	16
4	7.27	7.71		100		84		30	0	0.02		28.1		7.3		16
5	7.23	7.40		104		84		36	0.02	0.01		27.3		8.7		15
6	7.39	7.48		106		82		38	0.02	0.03		27.3		9.2		15
7	7.24	7.57		104		84		34	0.01	0.01		28.1		8.3		16
8	7.37	7.62		104		82		36	0.01	0.01		27.3		8.7		16
9	7.56	7.64		102		86		32	0.02	0.03		28.1		7.8		15
10	7.22	7.57	100	102	80	80	30	30	0.01	0.02	28.1	28.9	7.3	7.3	15	16
11	7.25	7.48		104		80		32	0.01	0.01		28.9		7.8		15
12	7.65	7.69		102		82		30	0.01	0.00		28.9		7.3		16
13	7.21	7.44		106		86		32	0	0.00		29.7		7.8		16
14	7.23	7.65		102		82		32	0.01	0.00		28.1		7.8		16
15	7.22	7.48		102		84		30	0.03	0.02		28.9		7.3		16
16	7.27	7.35		102		82		30	0	0.02		28.9		7.3		16
17	7.27	7.63	104	104	82	84	32	32	0.02	0.00	28.9	28.9	7.8	7.8	16	16
18	7.42	7.71		102		84		30	0	0.01		28.9		7.3		17
19	7.28	7.56		102		84		32	0.01	0.00		28.1		7.8		16
20	7.21	7.42		106		84		36	0.01	0.00		28.1		8.7		16
21	7.54	7.65		104		82		32	0.02	0.02		28.9		7.8		16
22	7.37	7.58		104		82		34	0	0.02		28.1		8.3		15
23	7.21	7.46		102		82		30	0.02	0.02		28.9		7.3		15
24	7.40	7.51	100	100	82	86	32	32	0.02	0.01	27.3	27.3	7.8	7.8	15	16
25	7.22	7.51		100		86		30	0	0.00		28.1		7.3		16
26	7.38	7.45		102		80		29	0.01	0.03		32.1		7.05		16
27	7.44	7.52		100		86		30	0.01	0.01		28.1		7.3		15
28	7.46	7.65		102		86		30	0	0.02		28.9		7.3		18
29	7.22	7.48		102		86		30	0.02	0.02		28.9		7.3		16
30	7.22	7.52		102		86		30	0.02	0.01		28.9		7.3		17
AVG	7.32	7.53		103		84		32		0.01		28.5		7.7		16
MAX	7.65	7.71		106		86		38		0.03		32.1		9.2		18.0
MIN	7.21	7.35		100		80		28		0.00		27.3		6.8		15.0



WSSN 2310

Sep-19

DATE	Total Coliform						Standard Plate Count		Conductivity (mS)	Temp deg.C	Color		Odor	
	Plant Tap						Raw	Tap			Raw	Tap	Raw	Tap
			Dort	3MG Well	Sta II	Lab Tap								
	60	61	62	63	64	65	66	67	68	69	71	72	73	74
1						2/0			0.24	20.5				
2						2/0			0.24	19.6				
3						2/0			0.23	18.4				
4						2/0			0.24	17.7				
5						2/0			0.23	17.4				
6						2/0			0.23	17.8				
7						2/0			0.23	17.4				
8						2/0			0.23	16.9				
9						2/0			0.23	17.0				
10						2/0			0.23	16.0				
11						2/0			0.23	16.5				
12						2/0			0.24	18.7				
13						2/0			0.24	17.5				
14						2/0			0.24	17.9				
15						2/0			0.24	18.8				
16						2/0			0.24	18.5				
17						2/0			0.24	18.9				
18						2/0			0.24	18.7				
19						2/0			0.23	18.9				
20						2/0			0.23	18.1				
21						2/0			0.23	17.3				
22						2/0			0.23	16.8				
23						2/0			0.23	16.6				
24						2/0			0.23	16.2				
25						2/0			0.23	15.8				
26						2/0			0.24	15.5				
27						2/0			0.24	15.8				
28						2/0			0.23	15.7				
29						2/0			0.23	15.1				
30						2/0			0.23	15.2				
AVG									0.23	17.4				
MAX									0.24	20.5				
MIN									0.23	15.1				



Distribution System Monitoring WSSN 2310

DATE	Free Chlorine Residual at Bacteriological Monitoring Stations mg/l																					Chlorine					
	1	2	3	4	CS	6	7	8	9	10	WR	12	13	14	15	16	17	18	19	20	26	27	28	29	30	21	22
1																											
2	0.97			1.28	1.35																						
3							1.24	1.66	0.91	1.47	1.25	0.69									1.17						1.06
4													1.32	1.19	1.10	1.47	0.98	0.84					1.44				
5	0.72		1.35	1.33	1.88															0.87		1.59					
6												0.82			1.44	1.50		1.10							1.55		
7																											
8																											
9	1.00	1.58		1.30	1.41	1.44																				1.26	1.10
10							0.73	1.32	0.97	1.38	0.97	0.38									1.00						0.72
11														1.43	1.25	1.47	1.60	0.99	1.02						1.54		
12	0.92		1.11	1.20	1.58															0.79		1.53					
13													0.76			1.35	1.49		0.91							1.51	
14																											
15																											
16	1.13	1.33		1.17	1.49	1.04																					0.89
17								1.43	0.88	1.30	1.28	0.32									0.46						1.04
18														1.05	0.49	1.22	1.27	0.65	0.42						1.28		
19	1.06		1.24	1.22	1.54																0.89		1.55				
20													0.78			1.44	1.60		1.13							1.61	
21																											
22																											
23	1.15	1.50		1.31	1.75	1.17																					0.72
24							1.18	1.60	1.17	1.48	1.03	0.43									0.36						1.06
25														1.43	1.24	1.39	1.56	0.72	1.29					1.47			
26	0.87			1.25	1.81										1.47	1.56		1.15									
27																											
28																											
29																											
30	1.12	1.49		1.18	1.59	1.33																				0.68	0.96
Monthly Cl₂ Avg.					1.19																						
Total Samples					121																						

Sep-19

only sites mg/l			
23	24	25	Number of Samples
			0
			3
			8
			7
	1.20		7
		0.94	6
			0
			0
			7
			8
1.71			8
			6
		0.93	6
			0
			0
			7
			7
1.39			8
			6
		0.91	6
			0
			0
			6
			8
1.76			8
			6
			0
			0
			0
			7



Distribution System Monitoring

WSSN 2310

DATE	Total Chlorine Residual at Bacteriological Monitoring Stations mg/l																							Chlorine				
	1	2	3	4	CS	6	7	8	9	10	WR	12	13	14	15	16	17	18	19	20	26	27	28	29	30	21	22	
1																												
2	1.18			1.47	1.82																							
3							1.36	1.79	1.10	1.70	1.46	0.69										1.37						1.19
4														1.61	1.34	1.57	1.73	1.16	1.13					1.68				
5	0.83		1.45	1.48	2.04																1.08		1.75					
6													1.01			1.58	1.63		1.22							1.69		
7																												
8																												
9	1.13	1.74		1.48	1.57	1.60																			1.47			1.35
10							1.22	1.79	1.25	1.63	1.25	0.65										1.31						1.07
11														1.62	1.39	1.62	1.75	1.18	1.18						1.71			
12	1.15		1.47	1.42	1.82																1.06		1.74					
13													0.97			1.50	1.73		1.17							1.79		
14																												
15																												
16	1.32	1.60		1.39	1.69	1.26																					1.16	
17								1.65	1.07	1.54	1.40	0.66										0.68			1.48			1.28
18														1.43	0.84	1.46	1.44	0.95	0.78						1.60			
19	1.18		1.33	1.41	1.70																	1.00		1.88				
20													1.02			1.55	1.71		1.41							1.75		
21																												
22																												
23	1.28	1.69		1.48	1.94	1.48																				1.46		
24							1.40	1.72	1.34	1.61	1.14	0.64										0.48						1.22
25														1.59	1.44	1.59	1.79	1.28	1.43						1.64			
26	1.20			1.42	1.92											1.59	1.79		1.23									
27																												
28																												
29																												
30	1.21	1.69		1.45	1.76	1.61																			0.89			1.24
Monthly Cl₂ Avg.				1.41																								
Total Samples				121																								

Sep-19

: only sites mg/l			
23	24	25	Number of Samples
			0
			3
			8
			7
	1.32		7
		1.07	6
			0
			0
			7
			8
1.88			8
			6
		1.06	6
			0
			0
			7
			7
1.83			8
			6
		1.07	6
			0
			0
			6
			8
1.86			8
			6
			0
			0
			0
			7

